8806-06-04

ORIGINAL
(Red)

R-585-7-8-29

SITE VISIT SUMMARY REPORT
FOR
ITT GRINNELL
PREPARED UNDER

TDD NO. F3-8806-06
EPA NO. PA-335
CONTRACT NO. 68-01-7346

FOR THE

HAZARDOUS SITE CONTROL DIVISION
U.S. ENVIRONMENTAL PROTECTION AGENCY

JULY 22, 1988

NUS CORPORATION
SUPERFUND DIVISION

ORIGINAL (Red)

1.0 FIELD TRIP REPORT

1.1 Summary

On Wednesday, July 13, 1988, NUS staff members Denice Taylor, Peter Uhlman, Claire Olsovsky, Brian Lipsitz, Joseph Garzio, and Jeffrey Slivka performed environmental sampling in support of the site investigation at the ITT Grinnell facility in Columbia, Lancaster County, Pennsylvania. The field team was accompanied by ITT Grinnell representatives Michael Millhouse, Joseph Sutor, and Terry Wittenberg. Pennsylvania Department of Environmental Resources Superfund inspector David Vollero was also informed of the field schedule. Weather conditions were clear and sunny, with temperatures between 85°F to 90°F.

A total of seven aqueous and five solid samples, including blanks and duplicates, were collected (see figure 3, attachment 1, for on-site sample locations).

Deviations from the Sampling Plan

- One additional auger sample was collected from a previously unidentified inactive lagoon. The solid duplicate sample was also collected from this location.

1.2 Persons Contacted

1.3 Site Observations

- No above-background HNU or mini-alert readings were recorded.

- There are three on-site lagoons located at the northern end of the property. The active lagoon is approximately 303 by 55 feet and is closest to an adjacent unnamed tributary to Shawnee Run. The larger of the inactive lagoons is 30 feet south of the active lagoon and is approximately the same size. The older, inactive lagoon is located to the west of the other lagoons, near the tree line. Its dimensions are unknown; however, it appears to have been approximately 63 feet in length. Both inactive lagoons have been backfilled and are revegetated. No stained areas were observed.

- Ponded water was observed in the larger inactive lagoon area. Although several springs reportedly originate from the slope below the present wastewater treatment plant, none were observed by NUS staff members.

- The lagoon area is flat (minimal slope). Surface water appears to drain to the active lagoon, which discharges to an unnamed tributary of Shawnee Run. The tributary joins Shawnee Run approximately 200 to 250 yards to the west of the site.

- Access to the lagoon area is restricted by a chain-link fence.

- A drum storage area was observed to the east of the lagoon area, near the plant buildings. Some drums were being stored on the ground while others were stored on pallets. The drums are reportedly empty hydraulic oil containers.

ATTACHMENT 1

8802-21-11

TDD No.: F3-8802-21

Site Name: ITT Grinnell ORIGINAL (Red)

PFE

SITE SAFETY PLAN

Site Name: ITT Grinnell Contact: Mike Millhouse

Address: 1411 Lancaster Avenue Phone Number: (717) 684-4400

Columbia, PA 17512 Other Contacts: _____

Purpose of Site Visit: Site Recon

Proposed Date of Work: 3/14/88

Proposed Site Investigation Team:

NUS Personnel	Responsibilities:

[redacted] Manager: _____ (3/8/88)

TDD No.: 8802-21 ORIGINAL (Red)

Site Name: ITT Grinnell

Background Information:

Site Status: ✓ Active ___ Inactive ___ Unknown

Site Description (be specific, include topography, structures, etc.):

Site is located on Rte 462 in Columbia, PA. ITT Grinnell Corporation is an active foundry which makes tight fittings and castings for automotive parts. The site has a galvanizing plant in which they operate an acid pickling department with a neutralization treatment area. The waste water is passed into a treatment plant, where it is ultimately discharged into an adjacent stream.

Site History: Site has been in operation since the early 1950's. The Grinnell Corporation currently holds a NPDES permit and has RCRA generator status. The company also has air permits following emission standards. The company has been found in violation of the NPDES on two occasions. The Grinnell Corp. used to have lagoons for waste water discharge.

Monitoring used on previous site work or previous sampling data:

No monitoring or sampling data known

TDD No.: 8802-21

Site Name: ITT Grinnell ORIGINAL (Red)

Hazard Evaluation

Waste Types: ✓Liquid ___Solid ✓Sludge ___Vapor

Characteristics: ✓Corrosive ___Ignitable ___Radioactive
___Volatile ✓Toxic ___Reactive
___Unknown ___Other _____

Task: Site Surveillance & Compilation of photo log Low ✓ Medium ___ High ___

Identification of Hazards/Hazard Assessment:
Waste on site includes HCl and H_2SO_4 used for acid pickling processes and NaOH used for neutralization. FIT does not expect to come in direct contact with the processing areas where these wastes are located.

Task: _____ Low ___ Medium ___ High ___

Identification of Hazards/Hazard Assessment:

Task: _____ Low ___ Medium ___ High ___

Identification of Hazards/Hazard Assessment:

Task: _____ Low ___ Medium ___ High ___

Identification of Hazards/Hazard Assessment:

OVERALL HAZARD: ___Serious ___Moderate
✓Low ___Unknown

TDD No.: 8809-21

Site Name: ITT Grinnell

Hazardous/Toxic Known or Suspected Materials	Concentration	Media	Toxic and Pharmacologic Effects	PEL, TLV, IDLH	Reactivity, Stability, Flammability	Special Monitoring Instrumen
Hydrochloric Acid HCl	unknown	liquid	Eye, skin & respiratory hazard Corrosive to Skin & Mucus membranes	PEL 5 ppm TLV 5 ppm IDLH 100 ppm	highly reactive with most metals corrosive	
H_2SO_4 (Sulfuric Acid)	unknown	liquid	Eye, skin & respiratory hazard/Irritant	PEL 1 mg/m³-air TLV 1 mg/m³-air IDLH 80 mg/m³	highly reactive corrosive Incompatible with organics, chlorates, carbides, fulminates, picrates & metals	
$NaOH$ (Sodium Hydroxide)	unknown	liquid	Eye skin & respiratory hazard	PEL 2 mg/m³ TLV unknown IDLH 200 mg/m³	Incompatible with water, organic halogens, metals, & nitro compounds	

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H_2SO_4 Sulfuric Acid con. → Skin Contact can cause blistering or burning
Ingestion causes Pul. H. Edema

ORIGINAL (Red)

TDD No.: 8802-21

Site Name: ITT Grinnell

REQUIRED LEVEL(

	Respiratory	Clothing	Gloves	Boots	Other; Modifications
Task: Site Surveill & photo log compilatic					
PM	D	F	None	W	
SSO	D	F	None	W	
SMO					
Surveillance (PA, site recon, etc	D	F	None	W	If HNU readings exceed background, leave area & observe from a location where HNU readings do not exceed background
	D	F	None	W	
Samplers					
					Hard hat & safety glasses will be worn in all areas required by Grinnell Corp
Other					
Decon					

Cotton=C
Field=F
Saranex=S

Butyl=B
Cotton=C
Latex=L

Fireman's=F
Latex=L

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TDD No.: 8802-21

Site Name: ITT Grinnell

Proposed On-site Activities: Site surveillance & compilation of photo log

Monitoring Procedures:

Site Monitoring Equipment:

- ✓ HNU
- ✓ OVA (if available)
- ___ Photovac
- ___ Draeger Tube & Pump
- ___ Victoreen Radiation Detector
- ✓ TLD Badge
- ✓ Radiation mini-alert
- ___ Explosimeter
- ___ O_2 meter
- ___ Other: _____

Methods and Frequency of Surveillance: (For compounds > 10% PELs, see page 4)

Continuous monitoring of HNU & mini-alert

Monitoring Equipment Calibration:

✓ HNu
As per manufacturer's recommendations, a field calibration is necessary once every three days. Calibration dates are recorded in the project logbook.

✓ OVA (if available)
As per manufacturer's recommendations, a field calibration is necessary every three days. Calibration dates are recorded in the project logbook.

✓ Mini-Alert
A battery check and a response check were made prior to leaving the FIT office and will be made immediately prior to instrument use in the field. This field procedure will be documented in the log book.

___ Other

ORIGINAL (Red)

TDD No.: 8809-21

Site Name: ITT Grinnell

Decontamination and Disposal:

Personnel Decontamination Procedure: (X) level to be utilized

_____ Level A - Segregated equipment drop, boot cover and glove wash, boot cover and glove rinse, tape removal, boot cover removal, outer glove removal, suit and hard hat removal, SCBA backpack removal, inner glove wash, inner glove removal, inner clothing removal, field wash redress.

_____ Level B - Segregated equipment drop, boot cover and glove wash, boot cover and glove rinse, tape removal, boot cover removal, outer glove removal, SCBA backpack removal, suit and hard hat removal, inner glove removal, inner clothing removal, field wash, redress.

_____ Level C - Segregated equipment drop, boot cover and glove wash, boot cover and glove rinse, tape removal, boot cover removal, outer glove removal, suit/safety boot wash, suit/safety boot rinse (Canister or Mask Change), safety boot removal, splash suit removal, inner glove removal, inner clothing removal, field wash, redress.

_____ Level D - Segregated equipment drop, boot and glove wash, boot and glove rinse.

✓ No personnel decontamination is necessary.

_____ Modifications (specify): _____

Equipment Decontamination: It is not expected that any equipment will need decontamination

Disposal Procedure for Investigation Derived Materials: It is not expected that any derived materials will need decontamination

IONIZING RADIATION: Normal background 0.01 to 0.02 mR/hr

If less than 2 mR/hr, continue investigation with caution.

If greater than 2 mR/hr, evacuate site.

*Note: Background 10-20 CPM on mini-alert

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TDD No.: 8802-21

Site Name: ITT Grinnell

SITE OPERATING PROCEDURES/SAFETY GUIDELINES

1. Always observe the buddy system. Never enter or exit a site alone, and never work alone in an isolated area. Never wander off by yourself.
2. Always maintain line-of-sight.
3. Practice contamination avoidance. Never sit down or kneel, never lay equipment on the ground, avoid obvious sources of contamination such as puddles, and avoid unnecessary contact with on-site objects.
4. No eating, drinking, or smoking outside the designated "clean" zone.
5. In the event PPE is ripped or torn, work shall stop and PPE shall be removed and replaced as soon as possible.
6. Be alert to any unusual changes in your own condition; never ignore warning signs. Notify Health and Safety Co-ordinator as to suspected exposures or accidents.
7. A vehicle will be readily available exclusively for emergency use. All FIT personnel going on site shall be familiar with the most direct route to the nearest hospital.
8. In the event of direct skin contact, the affected area shall be washed immediately with soap and water.
9. Copies of the health and safety plan shall be readily accessible at the command post.
10. Note wind direction. Personnel shall remain upwind whenever possible during on-site activities.
11. Never climb over or under refuse or obstacles. Use safety harness/safety lines when sampling lagoons, stream beds, and ravines with steep banks.
12. Hands and face must be thoroughly washed before eating, drinking, etc.
13. Any modifications to this safety plan MUST be approved by the RHSM or designee.

Special Procedures: ~~None~~ RPJ 2/10/88

If HNU Readings exceed background, leave the area and observe from a location where HNU readings do not exceed background

Tyvek suits will be worn for all on site procedures.

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TDD No.: 8802-21

Site Name: ITT Grinnell

Confined Space Entry

✓ No attempt will be made to enter abandoned buildings, manholes, tanks, or any other confined areas.

___ Other:

Medical Surveillance

✓ No site specific medical surveillance is required for this task.

___ Medical surveillance will be as follows:

Personnel Monitoring

✓ Personnel monitoring will include only the use of the TLD badge. No further personnel monitoring is required.

___ Personnel monitoring will consist of:

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TDD No.: 8802-21

Site Name: ITT Grinnell

Communication Procedures:

(Horn blast, siren, etc.) is the emergency signal to indicate that all personnel should leave the Exclusion Zone.

The following standard hand signals will be used in case of failure of radio communications:

Hand gripping throat ---------- Out of air, can't breathe

Grip partner's wrist or both hands around waist ---------- Leave area immediately

Hands on top of head ---------- Need assistance

Thumbs up ---------- OK, I am all right, I understand

Thumbs down ---------- No, negative

The following will be used on an "as-needed" basis: N/A

Channel _____ has been designated as the readio frequency for personnel in the Exclusion Zone. All other on-site communications will use channel _____.

Telephone communication to the Command Post should be established as soon as practicable. The phone number is _____.

H1

TOPIC	HRS	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE
INTRODUCTION	40	3/16/87	3/9/87									
SAMPLING	↓	↓	↓									
DECONTAMINATION	↓	↓	↓									
HHU	4	↓	↓									
FIRST AID	8	6/22/87	6/23/87									
CPR	8	6/8/87	6/8/87									
SCBA REVIEW	2	N/A	8/21/87									
FIT TEST (Ultra-twin)	0.5	10/14/87	8/21/87									
FIT TEST (Dustfoe)	0.5	12/14/87	12/17/87									

EMERGENCY SITUATIONS

Air Releases or Fire/Explosion:

In the event of an unexpected air release or fire/explosion, on-site personnel will travel at a right angle to the upwind direction. The Site Safety Officer (SSO) will then account for all personnel and notify the proper emergency agencies.

In the event the SSO is unavailable, the Project Manager will assume these responsibilities.

Emergency Site Control:

In the event of an emergency, the SSO will discourage any unauthorized personnel from entering the site. If necessary, the SSO will contact the proper authorities.

Personnel Injury:

If on-site personnel require emergency medical treatment, the following steps will be taken:

1) Evaluate the nature of the injury.
2) Decontaminate to the extent possible prior to administration of first aid or movement to emergency facilities.

First Aid Procedures:

Skin Contact:	Remove contaminated clothing. Wash immediately with water. Use soap if available.
Inhalation:	Remove from contaminated atmosphere. Artificial respiration, if necessary. Transport to hospital.
Ingestion:	Never induce vomiting on an unconscious person. Also, never induce vomiting when acids, alkalis, or petroleum products are suspected. Contact the poison control center.
Equipment Failure:	In the event that air monitoring equipment fails to operate, all personnel will exit the site immediately and notify the RHSM or designee for further instructions.

TDD No.: 8802-21 ORIGINAL (Red)

Site Name: ITT Grinnell

The MSDSs identified below are applicable to the Site Recon (SI, PA, site recon etc.) for the ITT Grinnell (site name) (TDD No. F3-8802-21):

EH

___	acetone
___	alcohol anhydrous*
✓	air (breathing)
___	alconox
___	amyl acetate (banana oil)
___	carbon monoxide gas
___	gasoline
___	hexane
✓	hydrogen
___	isopropyl alcohol
___	magnesium perchlorate*
___	mercuric acetate powder*
___	methanol
___	nitric acid
___	nitrogren
___	pH buffer 4.0
___	pH buffer 10.0
___	phosphoric acid*
___	smoke tubes
✓	sodium hydroxide
___	spray paint*
___	stannic chloride
✓	sulfuric acid*
___	1,1,1-trichloroethane
___	
___	zinc acetate dihydrate
✓	hydrochloric acid
___	_____
___	_____

VOA Standards

___	benzene
___	toluene
___	carbon tetrachloride
___	trans-1,2-dichloroethene*
___	trichloroethene*
___	tetrachloroethene*
___	vinyl chloride
___	o-xylene
___	m-xylene
___	p-xylene
___	chloroform
___	ethyl benzene

*Not presently available

TDD No.: 8802-21

Site Name: ITT Grinnell

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Emergency Information:

Local Resources:

Ambulance (Name): Columbia Phone 299-5501
Hospital (Name): Columbia Phone 684-2841
Police (Local or State): Columbia Phone 684-2500
Fire Department (Name & Volunteer?): Fire Dept of Columbia Phone 684-2500
Radio Channel
Nearest Phone: on site

Office Resources:

Region III FIT Office..... ..... (215) 687-9510

- Poison Information Center..... (215) 922-5523

- National Response Center..... (800) 424-8802
  (FOR ENVIRONMENTAL EMERGENCY ONLY)

Directions to Hospital (Attach Map): Follow Rte 321 West (Lincoln Highway) ((This will change names to 5th St in city limits.)) into Columbia. Turn right onto Poplar St. Hospital on left

University of Pittsburgh

SCHOOL OF MEDICINE
Department of Medicine
Program in Occupational Medicine

Emergency Physician Access Plan

NUS Corporation, Superfund Division

December, 1986

A. MONDAY THROUGH FRIDAY, 9:00 A.M. - 5:00 P.M.

Dial the (412) 648-3240 number. When answered state that:

(1) you are calling from NUS Corporation;
(2) this is an emergency call.

Program Staff will be alerted how to contact the physician designated to provide emergency covereage on that day. Collect calls will be accepted.

B. EVENINGS, WEEK-ENDS & HOLIDAYS:

Dial the (412) 648-3240 number. An operator from the answering service will answer the telephone. Do the following:

(1) tell the operator that you are calling from NUS Corporation
(2) tell the operator that this is an emergency call
(3) give her your name
(4) give her the telephone number where the physician is to call. Be certain that she has written the correct number (area code and seven digits)
(5) if you do not receive a call back within 15 minutes, place a second call to (412) 648-3240

Collect calls will be accepted.

C. SITUATIONS WHERE EMPLOYEE REQUIRES IMMEDIATE TRANSPORT TO A HOSPITAL:

If the situation is life-threatening, ie., cardiac arrest or person not breathing, call the emergency medical services system and transport the person to the nearest hospital with advanced life support capabilities.

After obtaining assistance as stated above, call the (412) 648-3240 number and follow the procedures in A or B as appropriate.

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Assignment Description

FIT 3 has been assigned to conduct a site inspection at the ITT Grinnell site. The objective of a site inspection is to provide the initial characterization of the site and determine if the site poses a potential threat to the public health or the environment.

Task Breakdown

The task breakdown of a site inspection is as follows.

1) Review background information.
2) Contact state and local agencies for relevant information.
3) Prepare and submit sampling plan to EPA for approval.
4) Coordinate laboratory analysis. Arrange for site access.
5) Conduct on- and off-site inspection and sampling.
6) Collect and ship samples according to standard protocol.
7) Prepare and submit field trip report, due two weeks after site inspection.
8) Perform QA of laboratory data; submit data summaries and maps upon completion of QA.
9) Prepare and submit report; in the cover letter, include recommendations for need of HRS.
10) Address peer review comments and submit final report.

Estimated Technical Hours

The estimated hours for completing this project are 425.

Costs and Budget Management

Compute the estimated cost associated with the analytical support required:

Type of Analysis	Unit Cost	No. of Samples	Total Analysis Cost
HSL Organics	$850.00	11	9350
Pesticide/PCB Extraction and Analysis	$264.000		
BNA Extraction and Analysis	$352.00		
Volatile Organics	$203.00	1	203
Inorganics	$150.00	11	1650
Dioxin	$350.00		
Other:			
	Total estimated cost of analysis request		11203

*These quotes are used for estimating only and are subject to price quote changes for analysis.

Subcontractor Costs ___✓___ Not applicable

Estimated Subcontracting Costs: _____

Proposed Schedule /Background Data/Data Assessment Summary

See attached site safety plan

Required Resource List

___✓___ No limited resource/equipment needed

_____ List any limited resources/equipment needed

_____

_____

_____

Quality Assurance Applicability

The following sections of the Superfund Division Quality Assurance Manual apply to the performance of this assignment.

✓	QAP	2.5	Work Plans
✓		3.1	Collection of Evidentiary Field Data
✓		3.2	Data Reduction, Validation, and Reporting of Evidentiary Data
✓		4.1	Off-Site Reconnaissance
✓		4.2	On-Site Inspection
		5.1	Preparation of Procurement Documents
		5.2	Subcontractor Quality Assurance Requirements
		6.1	Control of Subcontractor Procurement Activities
		6.2	Evaluation and Selection of Subcontractors
✓		8.1	Controlled and Accountable Documents
✓		8.2	Issuance and Distribution of Controlled Documents
✓		8.4	Technical Reports
✓		9.1	Chain-of-Custody
✓		9.2	Sample Control
✓	DT 7/15/88	10.1	Analysis Techniques
✓		11.1	Implementation of Measuring and Test Equipment Controls
✓		12.1	Packaging, Marking, Labeling, and Shipping of Samples from Hazardous Waste Sites
✓		13.1	Nonconformance Reporting, Evaluation, and Disposition
✓		14.1	Implementation and Documentation of Corrective Actions
✓		15.1	Storage and Retrieval of Quality Assurance Records and Project Files

ORIGINAL
(Red)

Quality Control Requirements

The FIT 3 Regional Operations Manual Standard Operating Procedures and Guidelines indicated will control the quality of all project-related work performed.

1. Sampling Procedures

✓	SOG I1	Soil Sampling
	SOG I2	Sediment Sampling
	SOG I3	Surface Water Sampling
✓	SOG I4	Groundwater Sampling
	SOG I5	Purging of Monitoring Wells
	SOG I6	Filtration of Groundwater Samples
	SOG I7	Air Sampling
	SOG I8	Drum Sampling
	SOG I9	Tank Sampling
	SOG I10	Waste Pile Sampling
	SOG I11	Split Sampling
	SOG I12	Dioxin/PCB Sampling
✓	SOG I 13	Laboratory Coordination

2. Sample Custody

✓	SOP II6	Documentation of Chain-of-Custody
✓	SOP II7	Documentation of Traffic Reports
✓	SOP II8	Documentation of Sample Tags
✓	SOP II9	Documentation of Sample Packaging and Shipping

3. **Calibration Procedures and Frequency**

✓	SOP I1	Use, Calibration, and Maintenance of the HNU PI-101
✓	SOP I2	Use, Calibration, and Maintenance of the Radiation Mini-Alert
	SOP I3	Use, Calibration, and Maintenance of the MSA Explosimeter
	SOP I4	Use, Calibration, and Maintenance of the MSA Oxygen Indicator
	SOP I5	Use, Calibration, and Maintenance of the Hach Model 19000
✓	SOP I6	Use, Calibration, and Maintenance of the OVA 128
	SOP I7	Use, Calibration, and Maintenance of the Photovac 10A10
	SOP I8	Use, Calibration, and Maintenance of the Air Sampling Equipment
	SOP I9	Use, Calibration, and Maintenance of the Omega™ PHH-49D

Data Acquisition/Technical Approach

All activities will be conducted according to the FIT 3 Regional Operations Manual.

✓	SOP II1	Documentation of Logbooks
✓	SOP II2	Documentation of Photographs
✓	SOP II3	Documentation of Telecons
✓	SOP II4	Documentation of Filing and Docketing
✓	SOP II5	Documentation of Samples
✓	SOP III1	Review of Technical Reports
✓	SOP III2	Report Format for Preliminary Assessments and Site Inspections
✓	SOP III3	Reporting On-/Off-Site Activities
✓	SOP III4	Completing Sample Logs
✓	SOP III5	Completing Sample Data Summaries

Report/Product Requirements

The report will consist of a completed EPA Form T-2070-3 and a written narrative presenting further information obtained during the completion of the assignment.

Report/Product Review

The FITOM or designee will be responsible for the quality verification of the final report.

Documents to be Generated

Check below to indicate the documents that will be generated in the course of the project (both deliverable and non-deliverable):

✓	Final Report	✓	Laboratory Data
✓	Draft Report	✓	Organic Traffic Reports
✓	Field Trip Report	✓	Inorganic Traffic Reports
✓	Logbooks	✓	Chain-of-Custody Forms
✓	Photographs and Negatives	✓	Sample Receipts
✓	Well Questionnaires	✓	Site Sampling Plan
✓	Safety Plan	✓	Sample Tags
✓	Site Safety Follow-Up Report	✓	Airbills
✓	Task-Related Correspondence		
✓	Report Processing Forms		
✓	Telecon Records		
✓	TDD		
✓	EPA File Information		
	State File Information		
✓	Completion Document		

Distribution

The undersigned have received, read, and understood this work plan or have attended a pre-field meeting and have discussed the contents of this work plan (must be signed by all project personnel).

Name	Date

TDD No.: F3- 8806-06 ORIGINAL

Site Name: ITT Grinnell

SITE SAFETY PLAN

Site Name: ITT Grinnell

Contact: Mike Millhouse

Address: 1411 Lancaster Ave.
Columbia, Pa. 17512

Phone Number: (717) 684-4400

Other Contacts:

Purpose of Site Visit: Site investigation

Proposed Date of Work: July 13, 1988

Proposed Site Investigation Team:

NUS Personnel	Responsibilities:

Plan Preparation:

ORIGINAL

TDD No.: F3-8806-06

Site Name: ITT Grinnell

Background Information:

Site Status: ✓ Active ___ Inactive ___ Unknown

Site Description (be specific, include topography, structures, etc.):

ITT Grinnell is located on Rt 462 in Columbia, PA. The site is an active foundary which includes an office, the main plant, a galvanizing plant, and a waste water treatment plant. The galvanizing plant consists of an acid pickling department and a neutralization treatment area. Waste water is discharged from the treatment plant to an active lagoon, and ultimately to the adjacent stream. An older, inactive, covered lagoon is located near the active lagoon

Site History: Plant processes have remained consistant since foundary operations began in the late 1920's. It is reported that untreated acidic rinse water and spent pickling liquors were discharged to the older lagoon prior to the initiation of the waste water treatment plan.

Monitoring used on previous site work or previous sampling data:

No above background HNu or mini-alert readings were recorded during the NUS reconnaissance in March, 1988.

TDD No.: F3-8806-06

Site Name: ITT Grinnell

Hazard Evaluation

Waste Types: ✓Liquid ___Solid ✓Sludge ___Vapor

Characteristics: ✓Corrosive ___Ignitable ___Radioactive
___Volatile ✓Toxic ___Reactive
___Unknown ___Other _____

Task: residential well sampling **Low** ✓ **Medium** ___ **High** ___

Identification of Hazards/Hazard Assessment:
There have been no reports of private well contamination as a result of site operations. Contact with well water will be avoided

Task: (auger) soil sampling **Low** ✓ **Medium** ___ **High** ___

Identification of Hazards/Hazard Assessment:
Dermal contact with potentially contaminated soil will be avoided.

Task: Upstream / Down Stream Samples **Low** ~~✓~~ N/A **Medium** ___ **High** ___

Identification of Hazards/Hazard Assessment: Potential for dermal hazard if previous on-site disposal practices have caused ground water contamination from various foundry [redacted] wastewater materials EH 7/6/88

Deleted sample EH. 7/6/88

Task: _____ **Low** ___ **Medium** ___ **High** ___

Identification of Hazards/Hazard Assessment:

OVERALL HAZARD: ___Serious ___Moderate
___Low ___Unknown

TDD No.: F3-8806-06

Site Name: ITT Grinnell

Hazardous/Toxic Known or Suspected Materials	Concentration	Media	Toxic and Pharmacologic Effects	PEL, TLV, IDLH	Reactivity, Stability, Flammability	Special Monitoring Instrumen
Hydrochloric Acid (HCl)	unknown	liquid	Eye, skin + respir. hazard. Corrosive to skin and mucus membranes.	PEL = 5 ppm TLV = 5 ppm IDLH = 100 ppm	Highly reactive with most metals, corrosive	
Sulfuric Acid (H_2SO_4)	unknown	liquid	Eye, skin + respir. hazard/irritant Dermal contact causes blistering or burning Ingestion causes Pulm. edema.	PEL = 1 mg/m³ TLV = 1 mg/m³ IDLH = 80 mg/m³	Highly reactive, corrosive, incompatible w/ organics, chlorates, carbides, fulminates, picrates + metals	
Sodium Hydroxide ($NaOH$)	unknown	liquid	Eye, skin + respir hazard	PEL = 2 mg/m³ TLV - unknown IDLH = 200 mg/m³	Incompatible with water, organic halogens, metals, + nitro compounds	

TDD No.: F3-8806-06

Site Name: ITT Grinnell

REQUIRED LEVEL(S) OF PROTECTION:

Task	Name	Respiratory	Clothing	Gloves	Boots	Other; Modifications
PM		D	7	NA	W	
SSO		D	7	NA	W	
SMO		D	7	NA	W	
Surveillance (PA, site recon, etc.)						
		IF HNU Reading exceed Background in the Ambient Air or at the material being SAMPLED Upgrade to Level B				
During Non Sampling		If HNU readings exceed background, team members will note the readings in the logbook and move to an area where HNU readings do not exceed background.				
Samplers						
residential wells		D	F	L	W	
		D	F	L	W	
stream samples (+ background soil)		D*	C	L/B	W/L	*if HNU rdgs > bckgrnd
** Stream samples deleted from sampl plan 7/1/88 DT		D	C	L/B	W/L	at work site, upgrade to level B respiratory protection
Other - auger sample		C	C	L/B	W/L	Level C - type GME-1+ cartridge
		C	C	L/B	W/L	
Decon		D	C	L/B	W/L	Splash Goggles
		C	C	L/B	W/L	Splash goggles

Cotton=C, Field=F, Saranex=S, Tyvek=T

Butyl=B, Cotton=C, Latex=L, Neoprene=N, Viton=V

Fireman's=F, Latex=L, Tyvek=T, Work=W

ORIGINAL

TDD No.: F3-8806-[illegible]

Site Name: ITT Grinnell

Proposed On-site Activities: On-site activities will include the collection of 1 auger sample, 2 stream samples, 1 background soil sample and 3-4 residential well samples.
(** Stream samples deleted from sampling plan 7/1/88 DT)

Monitoring Procedures:

Site Monitoring Equipment:

- ✓ HNU
- ✓ OVA
- ___ Photovac
- ___ Draeger Tube & Pump
- ___ Victoreen Radiation Detector
- ___ Other: _____
- ✓ TLD Badge
- ✓ Radiation mini-alert
- ___ Explosimeter
- ___ O_2 meter

Methods and Frequency of Surveillance: (For compounds > 10% PELs, see page 4)

There will be continuous monitoring of on-site activities with the HNu or OVA, and the mini-alert.

Monitoring Equipment Calibration:

✓ **HNu**
As per manufacturer's recommendations, a field calibration is necessary once every three days. Calibration dates are recorded in the project logbook.

✓ **OVA**
As per manufacturer's recommendations, a field calibration is necessary eve three days. Calibration dates are recorded in the project logbook.

✓ **Mini-Alert**
A battery check and a response check were made prior to leaving the F office and will be made immediately prior to instrument use in the field. T field procedure will be documented in the log book.

___ **Other**

TDD No.: F3-8806-06

Site Name: ITT Grinnell

Decontamination and Disposal:

Personnel Decontamination Procedure: (X) level to be utilized

____ **Level A -** **Segregated equipment drop, boot cover and glove wash, boot cover and glove rinse, tape removal, boot cover removal, outer glove removal, suit and hard hat removal, SCBA backpack removal, inner glove wash, inner glove removal, inner clothing removal, field wash redress.**

____ **Level B -** **Segregated equipment drop, boot cover and glove wash, boot cover and glove rinse, tape removal, boot cover removal, outer glove removal, SCBA backpack removal, suit and hard hat removal, inner glove removal, inner clothing removal, field wash, redress.**

✓ **Level C -** **Segregated equipment drop, boot cover and glove wash, boot cover and glove rinse, tape removal, boot cover removal, outer glove removal, suit/safety boot wash, suit/safety boot rinse (Canister or Mask Change), safety boot removal, splash suit removal, inner glove removal, inner clothing removal, field wash, redress.**

✓ **Level D -** **Segregated equipment drop, boot and glove wash, boot and glove rinse.**

____ **No personnel decontamination is necessary.**

✓ **Modifications (specify):** If work is upgraded to level B, use appropriate decon

Equipment Decontaminations: All equipment will be decanned with an alconox/water wash, tap water rinse, and DI water rinse

Disposal Procedure for Investigation Derived Materials: All investigation derived material will be disposed properly.

IONIZING RADIATION: Normal background 0.01 to 0.02 mR/hr

If less than 2 mR/hr, continue investigation with caution.

If greater than 2 mR/hr, evacuate site.

***Note: Background 10-20 CPM on mini-alert**

TDD No.: F3-8806-04

Site Name: ITT Grinnell

SITE OPERATING PROCEDURES/SAFETY GUIDELINES

1. Always observe the buddy system. Never enter or exit a site alone, and never work alone in an isolated area. Never wander off by yourself.
2. Always maintain line-of-sight.
3. Practice contamination avoidance. Never sit down or kneel, never lay equipment on the ground, avoid obvious sources of contamination such as puddles, and avoid unnecessary contact with on-site objects.
4. No eating, drinking, or smoking outside the designated "clean" zone.
5. In the event PPE is ripped or torn, work shall stop and PPE shall be removed and replaced as soon as possible.
6. Be alert to any unusual changes in your own condition; never ignore warning signs. Notify Health and Safety Co-ordinator as to suspected exposures or accidents.
7. A vehicle will be readily available exclusively for emergency use. All FIT personnel going on site shall be familiar with the most direct route to the nearest hospital.
8. In the event of direct skin contact, the affected area shall be washed immediately with soap and water.
9. Copies of the health and safety plan shall be readily accessible at the command post.
10. Note wind direction. Personnel shall remain upwind whenever possible during on-site activities.
11. Never climb over or under refuse or obstacles. Use safety harness/safety lines when sampling lagoons, stream beds, and ravines with steep banks.
12. Hands and face must be thoroughly washed before eating, drinking, etc.
13. Any modifications to this safety plan MUST be approved by the RHSM or designee.

Special Procedures: ① Heat stress monitoring will be performed as needed.

② Escape packs will be carried when an SCBA is not in use (on-site activities)

TDD No.: F3-8806-06

Site Name: ITT Grinnell

Confined Space Entry

✓ No attempt will be made to enter abandoned buildings, manholes, tanks, or an other confined areas.

___ Other:

Medical Surveillance

✓ No site specific medical surveillance is required for this task.

___ Medical surveillance will be as follows:

Personnel Monitoring

✓ Personnel monitoring will include only the use of the TLD badge. No further personnel monitoring is required.

___ Personnel monitoring will consist of:

HNU training

Nov 2, 1987

TOPIC	HRS	DATE	TAYLOR DATE	Unlman DATE	Olsousky DATE	Garzio DATE	Lipsitz DATE	Silvka DATE	DATE	DATE	DATE	DATE	DATE
INTRODUCTION	40	10-15-84	9-17-87	4-15-88	12-2-88	4-25-88	6-20-88						
SAMPLING	↓	↓	↓	↓	↓	↓	↓						
DECONTAMINATION	↓	↓	↓	↓	↓	↓	↓						
HNU	4	1-10-86	↓	↓	9-2-87	4-25-88	↓						
FIRST AID	8	2-20-87	—	11-6-86	4-13-87	—	—						
CPR	8	8-20-87	—	6/88	2-2-87	—	—						
SCBA REVIEW	2	4-24-88	9-17-87	4-15-88	8-20-87	4-25-88	6-20-88						
FIT TEST (Ultra-twin)	0.5	12-14-88	9-17-87	4-15-88	8-27-87	4-25-88	6-20-88						
FIT TEST (Dustfoe)	0.5	~~not to use~~ C	2-18-88	4-20-88	3-14-88	5-5-88	Level C						

of

TDD No.: F3-8806-06-

Site Name: MT Brunell

EMERGENCY SITUATIONS

Air Releases or Fire/Explosion:

In the event of an unexpected air release or fire/explosion, on-site personnel will travel at a right angle to the upwind direction. The Site Safety Officer (SSO) will then account for all personnel and notify the proper emergency agencies.

In the event the SSO is unavailable, the Project Manager will assume these responsibilities.

Emergency Site Control:

In the event of an emergency, the SSO will discourage any unauthorized personnel from entering the site. If necessary, the SSO will contact the proper authorities.

Personnel Injury:

If on-site personnel require emergency medical treatment, the following steps will be taken:

1) Evaluate the nature of the injury.
2) Decontaminate to the extent possible prior to administration of first aid or movement to emergency facilities.

First Aid Procedures:

Skin Contact: Remove contaminated clothing. Wash immediately with water. Use soap if available.

Inhalation: Remove from contaminated atmosphere. Artificial respiration, if necessary. Transport to hospital.

Ingestion: Never induce vomiting on an unconscious person. Also, never induce vomiting when acids, alkalis, or petroleum products are suspected. Contact the poison control center.

Equipment Failure: In the event that air monitoring equipment fails to operate, all personnel will exit the site immediately and notify the RHSM or designee for further instructions.

TDD No.: F3-8806-06

Site Name: ETT Brunnell

Communication Procedures:

(Horn blast, siren, etc.) is the emergency signal to indicate that all personnel should leave the Exclusion Zone.

The following standard hand signals will be used in case of failure of radio communications:

Hand gripping throat ---------- Out of air, can't breathe

Grip partner's wrist or both hands around waist ---------- Leave area immediately

Hands on top of head ---------- Need assistance

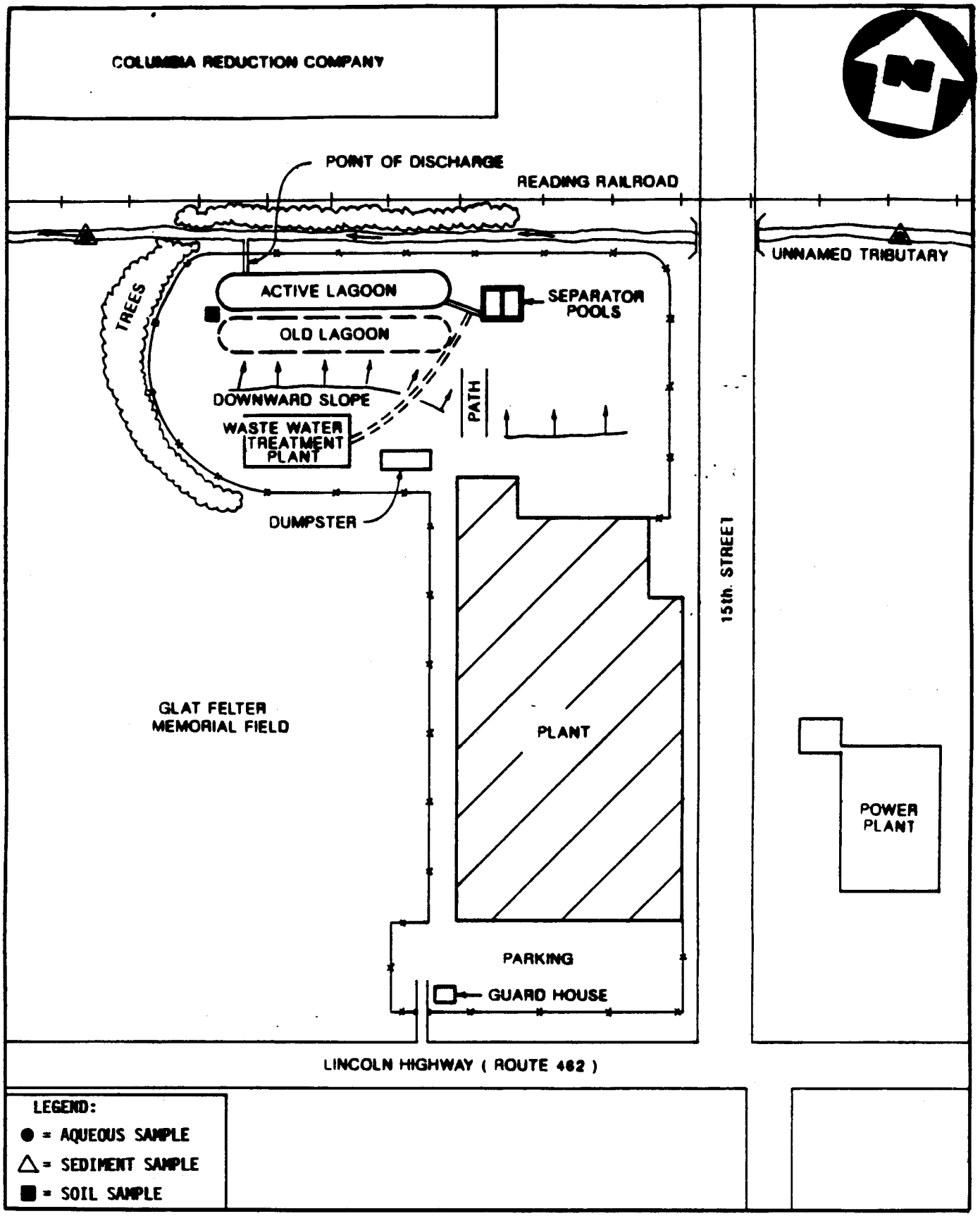
Thumbs up ---------- OK, I am all right, I understand

Thumbs down ---------- No, negative

The following will be used on an "as-needed" basis: N/A

Channel _____ has been designated as the readio frequency for personnel in the Exclusion Zone. All other on-site communications will use channel _____.

Telephone communication to the Command Post should be established as soon as practicable. The phone number is _____.



PROPOSED SAMPLE LOCATION MAP

ITT GRINNELL, COLUMBIA, PA.

(NO SCALE)

NUS CORPORATION

TDD No.: F3-8806-06

Site Name: ITT Grinnell

The MSDSs identified below are applicable to the SI (SI, PA, site recon, etc.) for the ITT Grinnell (site name) (TDD No. F3-8806-06):

	acetone
	alcohol anhydrous*
✓	air (breathing)
✓	alconox
	amyl acetate (banana oil)
	carbon monoxide gas
	gasoline
	hexane
✓	hydrogen
	isopropyl alcohol
	magnesium perchlorate*
	mercuric acetate powder*
	methanol
✓	nitric acid
	nitrogren
	pH buffer 4.0
	pH buffer 10.0
	phosphoric acid*
	smoke tubes
✓	sodium hydroxide
	spray paint*
	stannic chloride
	sulfuric acid*
	1,1,1-trichloroethane
	zinc acetate dihydrate
✓	HCl

VOA Standards

	benzene
	toluene
	carbon tetrachloride
	trans-1,2-dichloroethene*
	trichloroethene*
	tetrachloroethene*
	vinyl chloride
	o-xylene
	m-xylene
	p-xylene
	chloroform
	ethyl benzene

*Not presently available

Prepared by Site Leader: Bruce Taylor
Signature

University of Pittsburgh
SCHOOL OF MEDICINE
Department of Medicine
Program in Occupational Medicine

Emergency Physician Access Plan

NUS Corporation, Superfund Division

December, 1986

A. MONDAY THROUGH FRIDAY, 9:00 A.M. - 5:00 P.M.

Dial the (412) 648-3240 number. When answered state that:

(1) you are calling from NUS Corporation;
(2) this is an emergency call.

Program Staff will be alerted how to contact the physician designated to provide emergency covereage on that day. Collect calls will be accepted.

B. EVENINGS, WEEK-ENDS & HOLIDAYS:

Dial the (412) 648-3240 number. An operator from the answering service will answer the telephone. Do the following:

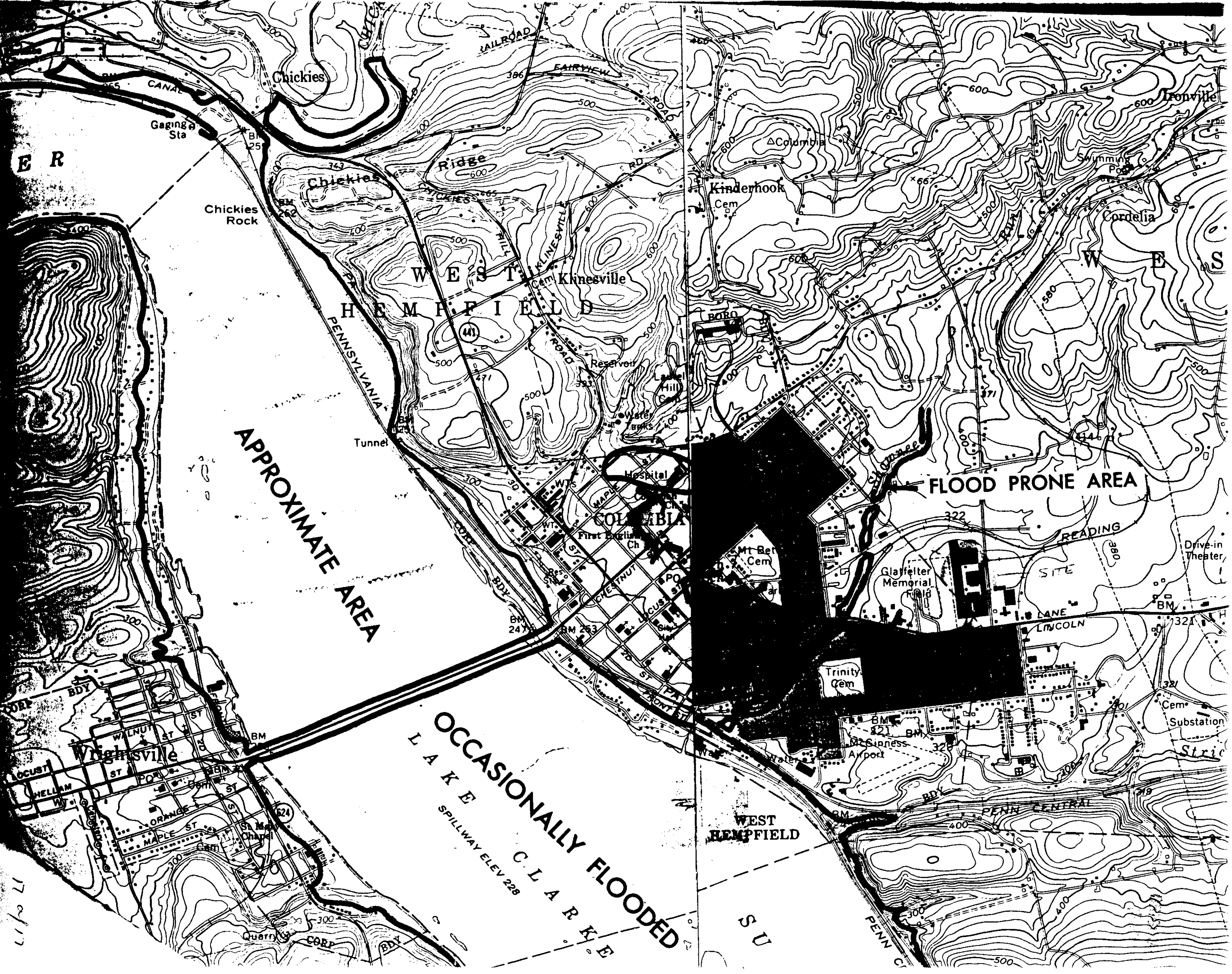
(1) tell the operator that you are calling from NUS Corporation
(2) tell the operator that this is an emergency call
(3) give her your name
(4) give her the telephone number where the physician is to call. Be certain that she has written the correct number (area code and seven digits)
(5) if you do not receive a call back within 15 minutes, place a second call to (412) 648-3240

Collect calls will be accepted.

C. SITUATIONS WHERE EMPLOYEE REQUIRES IMMEDIATE TRANSPORT TO A HOSPITAL

If the situation is life-threatening, ie., cardiac arrest or person not breathing, call the emergency medical services system and transport the person to the nearest hospital with advanced life support capabilities.

After obtaining assistance as stated above, call the (412) 648-3240 number and follow the procedures in A or B as appropriate.



APPROXIMATE AREA
OCCASIONALLY FLOODED
FLOOD PRONE AREA
LAKE CLARKE
SPILLWAY ELEV 228
WEST HEMPFIELD
Chickies
Chickies Ridge
Chickies Rock
Gaging Sta
Tunnel
Kinderhook
Klinesville
Reservoir
Water Tanks
Hospital
COLUMBIA
First English Ch
Mt Bethel Cem
Glatfelter Memorial Field
Trinity Cem
McGinness Airport
Wrightsville
Drive-in Theater
Substation
Ironville
Cordelia
Swimming Pool
PENNSYLVANIA
READING
PENN CENTRAL
LINCOLN
LANE
CANAL
FAIRVIEW
RAILROAD
CHESTNUT
LOCUST
WALNUT ST
ORANGE ST
MAPLE ST
HELLAM
Quarry

MATHESON GAS PRODUCTS
MATERIAL SAFETY DATA SHEET

002

PRODUCT IDENTIFICATION

MSDS002: AIR

SYNONYM(S): None

CHEMICAL FORMULA: None

C.A.S. NUMBER: None

D.O.T. SHIPPING NAME: Air, compressed

D.O.T. I.D. NUMBER: UN1002

D.O.T. HAZARD CLASS: Nonflammable Gas

D.O.T. LABEL(S): Nonflammable Gas

PHYSICAL DATA

MOLECULAR WEIGHT: 28.96

BOILING POINT: -194.35°C; -317.8°F

SPECIFIC VOLUME @ 1 ATM, 21.1°C: 0.830 m^3/kg; 13.3 ft^3/lb

DESCRIPTION: Air is a colorless, odorless, nonflammable gas mixture composed of approximately 79% nitrogen by volume and 21% oxygen by volume. It is compressed and shipped in high pressure cylinders. Unless specifically labeled it is not to be used for breathing purposes.

FIRE AND EXPLOSION HAZARD DATA

FLAMMABLE LIMITS IN AIR: Nonflammable

FIRE FIGHTING PROCEDURES: Air is nonflammable and as such does not create a fire hazard. However, cylinders that are exposed to fire may rupture with violent force. They may be kept cool using a water spray applied from the maximum possible distance.

UNUSUAL FIRE AND EXPLOSION HAZARDS: High pressure air can greatly accelerate combustion.

HEALTH HAZARD DATA

PERMISSIBLE EXPOSURE LIMITS:

OSHA TWA: Not applicable

ACGIH TWA: Not applicable

ACUTE EFFECTS OF OVEREXPOSURE: Not Applicable

CHRONIC EFFECTS OF OVEREXPOSURE: Not Applicable

FIRST AID INFORMATION

Not applicable

REACTIVITY DATA

Air is a stable mixture.

Keep high pressure air away from oil, grease and readily ignitable materials. Under pressure it greatly accelerates combustion.

SPILL OR LEAK PROCEDURE

No special procedures are required. Compressed air is not hazardous except in the presence of oil, grease and other readily ignitable materials.